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EXAMINER

SYED, FARHAN M

ART UNIT	PAPER NUMBER
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2165

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/17/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/822,438

Applicant(s)

ANDERSON ET AL.

Examiner

Farhan M. Syed

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 April 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
- Paper No(s)/Mail Date _____.

- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-26 are pending.

Drawings

2. New corrected drawings in compliance with 37 CFR 1.121(d) are required in this application because Figure 4 is marked up manually.. Applicant is advised to employ the services of a competent patent draftsman outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-26 are rejected under 35 U.S.C. 102(e) as being anticipated by Harris (U.S. Patent Pub. 2002/0059204 A1)

As per claim 1, Harris teaches a method of querying data comprising (i.e. "The application can develop a customized query for the website and/or other data sources accessible to the server, using wired or wireless communications systems and protocols.")(paragraph [0008]): **initiating a manager module including registering talents on a database** (i.e. "In one embodiment, the methods and systems can provide an application that can be installed on a subscriber's server to allow a website and/or other data sources accessible to the server, to be searched without requiring pre-integration, reformatting, etc. of the server or the data on the server. In another embodiment, the application can reside on another device or server that can be in communication with the subscriber's website server. For the purposes of the methods and systems described herein, a "website" can be understood to include a document on a network such as the internet or an intranet, that can include a home page and other documents and files that can be accessed through the webpage either directly or indirectly, and the website can also include databases that can be accessed directly or indirectly. The application can develop a customized query for the website and/or other data sources accessible to the server, using wired or wireless communications systems and protocols.")(paragraph [0008]); **receiving a request to perform a requested task** (i.e. "In one embodiment, the customized dictionaries can receive a HTTP command and thereafter reach behind security measures such as firewalls to access otherwise protected or secure data.")(Paragraph [0010]) **and routing the request to the manager module** (i.e. "The methods and systems can accommodate customized searches. Accordingly, a user can establish an account or profile that can be transmitted or otherwise associated with the search or query request from the initiating device or website. The user's profile can be incorporated into the customized searches at the subscriber websites. In one embodiment, the user can transmit the profile with the query information or search request, while in another embodiment, the user can be identified at the initiating device or website by an account number that can allow access to a locally or centrally stored profile for submission with the inquiry. In yet another embodiment, a user can submit or otherwise be associated with a profile such that subscribers can customize a search or query based on the user profile and/or identity.")(Paragraph

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[0015]); analyzing the database to determine if the requested task is available (i.e. "As FIG. 1 indicates, the techniques herein can be initiated by a survey 102 of a data source 20. The survey can be automated or manually guided to identify data sources 20. As will be understood herein, data sources can include one or more textual documents, databases, etc., where a textual document can be understood to include a text file, web page, etc., that can be formatted text such as HTML, XML, some other SGML format, or another text format. A data source that is a database can use a format compatible with MySQL, SQL, Oracle, Informix, Sybase, the Freedom Engine, Access, ODBC, DB2, etc. Those with ordinary skill in the art will recognize that the methods and systems are not limited to the type or format of the data sources. Through the survey 102, the data source(s) can be analyzed with regard to data format, data type, data organization (e.g., categorization, hierarchical structure), relevant terms and phrases, relationships between words, terms, and phrases, identification of abbreviations or word/phrase variations, codes related to data (purchase codes, product codes, price codes, or any other code that can relate to categorizing the product in terms of price, demographic appropriateness or characteristics, etc.) etc. Other information related to the data source can be manually provided. In some embodiments, the survey can be automated, and additional information including the number of data sources, etc., can be determined. For the purposes of illustration with respect to the embodiment of FIG. 1, a database data source 20 is illustrated, although such an example is provided for illustration and not limitation, and multiple and varied format data sources, including textual data sources, can be utilized for the methods and systems.")(Paragraph [0029]); and if the talent is available, performing the following: transferring the request to at least one talent agent that corresponds with the requested task (i.e. "For example, the query results 108 can be transferred to the entity that requested that supplied the query information 106, or another entity can be designated or otherwise specified to receive the query results 108. As indicated previously herein, FIG. 1 illustrates the principles of the methods and systems which have wide applicability.")(Paragraph [0031]); and performing the requested task (i.e. "In an embodiment, the server 14 can access subscriber information from the database 13 to cause the query information to be distributed to one or more subscribers 16a, 16b, 16c. In the illustrated system, the

database 13 can include URLs of subscriber servers 16a, 16b, 16c (also referenced herein collectively or individually as 16). The query information can be transferred, distributed, or otherwise communicated to the subscriber servers 16 simultaneously as in a broadcast, or using an ordered scheme that can include network or load balancing schemes. The FIG. 1 system illustrates the communication of query information to three subscribers 16a, 16b, 16c although the methods and systems can be applied to one or more subscribers and the number of subscribers is not a limitation. For an embodiment wherein the system server 14 communicates to the subscriber servers 16 via a network such as the internet, the transfer of the query information can be performed using HTTP or HTTPS, for example, although such an example is provided for illustration and not limitation.")(Paragraph [0041]).

As per claim 2, Harris teaches a method, wherein registering talents in a database further includes registering native talents available within the manager module on the database (i.e. "For example, if the data source 20 is a database. the survey engine can identify labels of tables, rows, and columns, and abbreviations of labels, when necessary. This survey information can be incorporated into a dictionary 18 to allow received query information to be properly translated for the database. In the case of a database, query information from a user of the initiating device 12 can be an input to a dictionary 18, and the dictionary output can be a customized SQL query that uses terminology, abbreviations, etc., derived from the survey engine. In some embodiments, the dictionary output can be a customized HTTP search string that can utilize a general access method that can be created for the data source (e.g., the HTTP search string can be formatted based on drop-down menus/boxes, radio button selections, and/or other general access provisions). In an example of a database embodiment, a database can be configured with columns or rows that relate to colors that are abbreviated, such as "Rd" for Red, "Bl" for Blue, etc. If query information is submitted with the word "Blue", the customized dictionary can cause a customized query to be formatted using "Bl" according to the survey information. Accordingly, row information and column information can be understood herein to include a characterization of the database information that can include header information, element information,

extraneous information that can otherwise provide insight to the database, etc.")(Paragraph [0044]).

As per claim 3, Harris teaches a method, wherein registering talents in a database further includes registering native talents available on an agent module on the database (i.e. "For example, if the data source 20 is a database, the survey engine can identify labels of tables, rows, and columns, and abbreviations of labels, when necessary. This survey information can be incorporated into a dictionary 18 to allow received query information to be properly translated for the database. In the case of a database, query information from a user of the initiating device 12 can be an input to a dictionary 18, and the dictionary output can be a customized SQL query that uses terminology, abbreviations, etc., derived from the survey engine. In some embodiments, the dictionary output can be a customized HTTP search string that can utilize a general access method that can be created for the data source (e.g., the HTTP search string can be formatted based on drop-down menus/boxes, radio button selections, and/or other general access provisions). In an example of a database embodiment, a database can be configured with columns or rows that relate to colors that are abbreviated, such as "Rd" for Red, "Bl" for Blue, etc. If query information is submitted with the word "Blue", the customized dictionary can cause a customized query to be formatted using "Bl" according to the survey information. Accordingly, row information and column information can be understood herein to include a characterization of the database information that can include header information, element information, extraneous information that can otherwise provide insight to the database, etc." "In the illustrated systems and methods, results of a customized data source search can be provided to a dictionary 18, and the dictionary 18 can thereafter organize, format, etc., the search results for return to the initiating device 12. The information can be presented via the subscriber server 16 to the System Server 14 and hence to the initiating device 12, or directly from the subscriber server 16 to the initiating device 12. In one embodiment, the search results can be formatted in XML to allow the server 16 to format the results according to a web application that can be executing on the subscriber server 16. For example, the XML output from the dictionary 18 can be used in Extensible Stylesheet Language (XSL) stylesheets or other

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web formatting options. Those with ordinary skill in the art will recognize that many formats for the dictionary output can be utilized, and the use of XML herein is provided for illustration and not limitation. For example, in one embodiment, HTML templates can be utilized to present search results directly to an internet browser without requiring additional programming. Other forms of SGML documents or other textual formats can be used without departing from the scope of the techniques provided herein. Alternately, search results can be presented graphically using bar charts, pie charts, histograms, Excel compatible spreadsheets, etc. Search results can also be saved as an Excel compatible file for later analysis. Additionally and optionally, the methods and systems herein can allow the search results to be provided to an application through a variety of Application Programmer Interfaces (APIs)."(Paragraphs [0044], [0050]).

As per claim 4, Harris teaches a method, wherein registering talents in a database further includes registering talents available by talent providers on the database (i.e. "For example, if the data source 20 is a database. the survey engine can identify labels of tables, rows, and columns, and abbreviations of labels, when necessary. This survey information can be incorporated into a dictionary 18 to allow received query information to be properly translated for the database. In the case of a database, query information from a user of the initiating device 12 can be an input to a dictionary 18, and the dictionary output can be a customized SQL query that uses terminology, abbreviations, etc., derived from the survey engine. In some embodiments, the dictionary output can be a customized HTTP search string that can utilize a general access method that can be created for the data source (e.g., the HTTP search string can be formatted based on drop-down menus/boxes, radio button selections, and/or other general access provisions). In an example of a database embodiment, a database can be configured with columns or rows that relate to colors that are abbreviated, such as "Rd" for Red, "Bl" for Blue, etc. If query information is submitted with the word "Blue", the customized dictionary can cause a customized query to be formatted using "Bl" according to the survey information. Accordingly, row information and column information can be understood herein to include a characterization of the

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database information that can include header information, element information, extraneous information that can otherwise provide insight to the database, etc.” “In the illustrated systems and methods, results of a customized data source search can be provided to a dictionary 18, and the dictionary 18 can thereafter organize, format, etc., the search results for return to the initiating device 12. The information can be presented via the subscriber server 16 to the System Server 14 and hence to the initiating device 12, or directly from the subscriber server 16 to the initiating device 12. In one embodiment, the search results can be formatted in XML to allow the server 16 to format the results according to a web application that can be executing on the subscriber server 16. For example, the XML output from the dictionary 18 can be used in Extensible Stylesheet Language (XSL) stylesheets or other web formatting options. Those with ordinary skill in the art will recognize that many formats for the dictionary output can be utilized, and the use of XML herein is provided for illustration and not limitation. For example, in one embodiment, HTML templates can be utilized to present search results directly to an internet browser without requiring additional programming. Other forms of SGML documents or other textual formats can be used without departing from the scope of the techniques provided herein. Alternately, search results can be presented graphically using bar charts, pie charts, histograms, Excel compatible spreadsheets, etc. Search results can also be saved as an Excel compatible file for later analysis. Additionally and optionally, the methods and systems herein can allow the search results to be provided to an application through a variety of Application Programmer Interfaces (APIs).”(Paragraphs [0044], [0050]).

As per claim 5, Harris teaches a method, wherein the database is a configuration database compiled by the execution of talent registration requests (i.e. “For example, if the data source 20 is a database, the survey engine can identify labels of tables, rows, and columns, and abbreviations of labels, when necessary. This survey information can be incorporated into a dictionary 18 to allow received query information to be properly translated for the database. In the case of a database, query information from a user of the initiating device 12 can be an input to a dictionary 18, and the dictionary output can be a customized SQL query that uses terminology, abbreviations, etc., derived from

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the survey engine. In some embodiments, the dictionary output can be a customized HTTP search string that can utilize a general access method that can be created for the data source (e.g., the HTTP search string can be formatted based on drop-down menus/boxes, radio button selections, and/or other general access provisions). In an example of a database embodiment, a database can be configured with columns or rows that relate to colors that are abbreviated, such as "Rd" for Red, "Bl" for Blue, etc. If query information is submitted with the word "Blue", the customized dictionary can cause a customized query to be formatted using "Bl" according to the survey information. Accordingly, row information and column information can be understood herein to include a characterization of the database information that can include header information, element information, extraneous information that can otherwise provide insight to the database, etc." "In the illustrated systems and methods, results of a customized data source search can be provided to a dictionary 18, and the dictionary 18 can thereafter organize, format, etc., the search results for return to the initiating device 12. The information can be presented via the subscriber server 16 to the System Server 14 and hence to the initiating device 12, or directly from the subscriber server 16 to the initiating device 12. In one embodiment, the search results can be formatted in XML to allow the server 16 to format the results according to a web application that can be executing on the subscriber server 16. For example, the XML output from the dictionary 18 can be used in Extensible Stylesheet Language (XSL) stylesheets or other web formatting options. Those with ordinary skill in the art will recognize that many formats for the dictionary output can be utilized, and the use of XML herein is provided for illustration and not limitation. For example, in one embodiment, HTML templates can be utilized to present search results directly to an internet browser without requiring additional programming. Other forms of SGML documents or other textual formats can be used without departing from the scope of the techniques provided herein. Alternately, search results can be presented graphically using bar charts, pie charts, histograms, Excel compatible spreadsheets, etc. Search results can also be saved as an Excel compatible file for later analysis. Additionally and optionally, the methods and systems herein can allow the search results to be provided to an application through a variety of Application Programmer Interfaces (APIs)."(Paragraphs [0044], [0050]).

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As per claim 6, Harris teaches a method, wherein a talent is an action that is capable of being performed by a talent agent (i.e. "For example, if the data source 20 is a database, the survey engine can identify labels of tables, rows, and columns, and abbreviations of labels, when necessary. This survey information can be incorporated into a dictionary 18 to allow received query information to be properly translated for the database. In the case of a database, query information from a user of the initiating device 12 can be an input to a dictionary 18, and the dictionary output can be a customized SQL query that uses terminology, abbreviations, etc., derived from the survey engine. In some embodiments, the dictionary output can be a customized HTTP search string that can utilize a general access method that can be created for the data source (e.g., the HTTP search string can be formatted based on drop-down menus/boxes, radio button selections, and/or other general access provisions). In an example of a database embodiment, a database can be configured with columns or rows that relate to colors that are abbreviated, such as "Rd" for Red, "Bl" for Blue, etc. If query information is submitted with the word "Blue", the customized dictionary can cause a customized query to be formatted using "Bl" according to the survey information. Accordingly, row information and column information can be understood herein to include a characterization of the database information that can include header information, element information, extraneous information that can otherwise provide insight to the database, etc." "In the illustrated systems and methods, results of a customized data source search can be provided to a dictionary 18, and the dictionary 18 can thereafter organize, format, etc., the search results for return to the initiating device 12. The information can be presented via the subscriber server 16 to the System Server 14 and hence to the initiating device 12, or directly from the subscriber server 16 to the initiating device 12. In one embodiment, the search results can be formatted in XML to allow the server 16 to format the results according to a web application that can be executing on the subscriber server 16. For example, the XML output from the dictionary 18 can be used in Extensible Stylesheet Language (XSL) stylesheets or other web formatting options. Those with ordinary skill in the art will recognize that many formats for the dictionary output can be utilized, and the use of XML herein is provided for illustration and not limitation. For example, in one embodiment, HTML templates can be

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utilized to present search results directly to an internet browser without requiring additional programming. Other forms of SGML documents or other textual formats can be used without departing from the scope of the techniques provided herein. Alternately, search results can be presented graphically using bar charts, pie charts, histograms, Excel compatible spreadsheets, etc. Search results can also be saved as an Excel compatible file for later analysis. Additionally and optionally, the methods and systems herein can allow the search results to be provided to an application through a variety of Application Programmer Interfaces (APIs)."(Paragraphs [0044], [0050]).

As per claim 7, Harris teaches a method, wherein a talent is an action that is capable of being performed by a talent provider (i.e. "For example, if the data source 20 is a database. the survey engine can identify labels of tables, rows, and columns, and abbreviations of labels, when necessary. This survey information can be incorporated into a dictionary 18 to allow received query information to be properly translated for the database. In the case of a database, query information from a user of the initiating device 12 can be an input to a dictionary 18, and the dictionary output can be a customized SQL query that uses terminology, abbreviations, etc., derived from the survey engine. In some embodiments, the dictionary output can be a customized HTTP search string that can utilize a general access method that can be created for the data source (e.g., the HTTP search string can be formatted based on drop-down menus/boxes, radio button selections, and/or other general access provisions). In an example of a database embodiment, a database can be configured with columns or rows that relate to colors that are abbreviated, such as "Rd" for Red, "Bl" for Blue, etc. If query information is submitted with the word "Blue", the customized dictionary can cause a customized query to be formatted using "Bl" according to the survey information. Accordingly, row information and column information can be understood herein to include a characterization of the database information that can include header information, element information, extraneous information that can otherwise provide insight to the database, etc." "In the illustrated systems and methods, results of a customized data source search can be provided to a dictionary 18, and the dictionary 18 can thereafter organize, format,

etc., the search results for return to the initiating device 12. The information can be presented via the subscriber server 16 to the System Server 14 and hence to the initiating device 12, or directly from the subscriber server 16 to the initiating device 12. In one embodiment, the search results can be formatted in XML to allow the server 16 to format the results according to a web application that can be executing on the subscriber server 16. For example, the XML output from the dictionary 18 can be used in Extensible Stylesheet Language (XSL) stylesheets or other web formatting options. Those with ordinary skill in the art will recognize that many formats for the dictionary output can be utilized, and the use of XML herein is provided for illustration and not limitation. For example, in one embodiment, HTML templates can be utilized to present search results directly to an internet browser without requiring additional programming. Other forms of SGML documents or other textual formats can be used without departing from the scope of the techniques provided herein. Alternately, search results can be presented graphically using bar charts, pie charts, histograms, Excel compatible spreadsheets, etc. Search results can also be saved as an Excel compatible file for later analysis. Additionally and optionally, the methods and systems herein can allow the search results to be provided to an application through a variety of Application Programmer Interfaces (APIs)."(Paragraphs [0044], [0050]).

As per claim 8, Harris teaches a method, wherein a talent is an action that is capable of being performed by the manager module (i.e. "For example, if the data source 20 is a database. the survey engine can identify labels of tables, rows, and columns, and abbreviations of labels, when necessary. This survey information can be incorporated into a dictionary 18 to allow received query information to be properly translated for the database. In the case of a database, query information from a user of the initiating device 12 can be an input to a dictionary 18, and the dictionary output can be a customized SQL query that uses terminology, abbreviations, etc., derived from the survey engine. In some embodiments, the dictionary output can be a customized HTTP search string that can utilize a general access method that can be created for the data source (e.g., the HTTP search string can be formatted based on drop-down menus/boxes, radio button selections, and/or other general access

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provisions). In an example of a database embodiment, a database can be configured with columns or rows that relate to colors that are abbreviated, such as "Rd" for Red, "Bl" for Blue, etc. If query information is submitted with the word "Blue", the customized dictionary can cause a customized query to be formatted using "Bl" according to the survey information. Accordingly, row information and column information can be understood herein to include a characterization of the database information that can include header information, element information, extraneous information that can otherwise provide insight to the database, etc." "In the illustrated systems and methods, results of a customized data source search can be provided to a dictionary 18, and the dictionary 18 can thereafter organize, format, etc., the search results for return to the initiating device 12. The information can be presented via the subscriber server 16 to the System Server 14 and hence to the initiating device 12, or directly from the subscriber server 16 to the initiating device 12. In one embodiment, the search results can be formatted in XML to allow the server 16 to format the results according to a web application that can be executing on the subscriber server 16. For example, the XML output from the dictionary 18 can be used in Extensible Stylesheet Language (XSL) stylesheets or other web formatting options. Those with ordinary skill in the art will recognize that many formats for the dictionary output can be utilized, and the use of XML herein is provided for illustration and not limitation. For example, in one embodiment, HTML templates can be utilized to present search results directly to an internet browser without requiring additional programming. Other forms of SGML documents or other textual formats can be used without departing from the scope of the techniques provided herein. Alternately, search results can be presented graphically using bar charts, pie charts, histograms, Excel compatible spreadsheets, etc. Search results can also be saved as an Excel compatible file for later analysis. Additionally and optionally, the methods and systems herein can allow the search results to be provided to an application through a variety of Application Programmer Interfaces (APIs)."(Paragraphs [0044], [0050]).

As per claim 9, Harris teaches a method, wherein the database includes a list of talents and corresponding talent agents capable of performing the talents (i.e. "For example, if the

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data source 20 is a database. the survey engine can identify labels of tables, rows, and columns, and abbreviations of labels, when necessary. This survey information can be incorporated into a dictionary 18 to allow received query information to be properly translated for the database. In the case of a database, query information from a user of the initiating device 12 can be an input to a dictionary 18, and the dictionary output can be a customized SQL query that uses terminology, abbreviations, etc., derived from the survey engine. In some embodiments, the dictionary output can be a customized HTTP search string that can utilize a general access method that can be created for the data source (e.g., the HTTP search string can be formatted based on drop-down menus/boxes, radio button selections, and/or other general access provisions). In an example of a database embodiment, a database can be configured with columns or rows that relate to colors that are abbreviated, such as "Rd" for Red, "Bl" for Blue, etc. If query information is submitted with the word "Blue", the customized dictionary can cause a customized query to be formatted using "Bl" according to the survey information. Accordingly, row information and column information can be understood herein to include a characterization of the database information that can include header information, element information, extraneous information that can otherwise provide insight to the database, etc." "In the illustrated systems and methods, results of a customized data source search can be provided to a dictionary 18, and the dictionary 18 can thereafter organize, format, etc., the search results for return to the initiating device 12. The information can be presented via the subscriber server 16 to the System Server 14 and hence to the initiating device 12, or directly from the subscriber server 16 to the initiating device 12. In one embodiment, the search results can be formatted in XML to allow the server 16 to format the results according to a web application that can be executing on the subscriber server 16. For example, the XML output from the dictionary 18 can be used in Extensible Stylesheet Language (XSL) stylesheets or other web formatting options. Those with ordinary skill in the art will recognize that many formats for the dictionary output can be utilized, and the use of XML herein is provided for illustration and not limitation. For example, in one embodiment, HTML templates can be utilized to present search results directly to an internet browser without requiring additional programming. Other forms of SGML documents or other textual formats can be used without departing from the scope of the techniques provided herein. Alternately, search results can be presented graphically using bar

charts, pie charts, histograms, Excel compatible spreadsheets, etc. Search results can also be saved as an Excel compatible file for later analysis. Additionally and optionally, the methods and systems herein can allow the search results to be provided to an application through a variety of Application Programmer Interfaces (APIs)."(Paragraphs [0044], [0050]).

As per claim 10, Harris teaches a method, wherein the manager module further includes a cluster of manager modules that can distribute functionality and serve as redundancy (i.e. "For example, if the data source 20 is a database. the survey engine can identify labels of tables, rows, and columns, and abbreviations of labels, when necessary. This survey information can be incorporated into a dictionary 18 to allow received query information to be properly translated for the database. In the case of a database, query information from a user of the initiating device 12 can be an input to a dictionary 18, and the dictionary output can be a customized SQL query that uses terminology, abbreviations, etc., derived from the survey engine. In some embodiments, the dictionary output can be a customized HTTP search string that can utilize a general access method that can be created for the data source (e.g., the HTTP search string can be formatted based on drop-down menus/boxes, radio button selections, and/or other general access provisions). In an example of a database embodiment, a database can be configured with columns or rows that relate to colors that are abbreviated, such as "Rd" for Red, "Bl" for Blue, etc. If query information is submitted with the word "Blue", the customized dictionary can cause a customized query to be formatted using "Bl" according to the survey information. Accordingly, row information and column information can be understood herein to include a characterization of the database information that can include header information, element information, extraneous information that can otherwise provide insight to the database, etc." "In the illustrated systems and methods, results of a customized data source search can be provided to a dictionary 18, and the dictionary 18 can thereafter organize, format, etc., the search results for return to the initiating device 12. The information can be presented via the subscriber server 16 to the System Server 14 and hence to the initiating device 12, or directly from the subscriber server 16 to the initiating device 12. In

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one embodiment, the search results can be formatted in XML to allow the server 16 to format the results according to a web application that can be executing on the subscriber server 16. For example, the XML output from the dictionary 18 can be used in Extensible Stylesheet Language (XSL) stylesheets or other web formatting options. Those with ordinary skill in the art will recognize that many formats for the dictionary output can be utilized, and the use of XML herein is provided for illustration and not limitation.

For example, in one embodiment, HTML templates can be utilized to present search results directly to an internet browser without requiring additional programming. Other forms of SGML documents or other textual formats can be used without departing from the scope of the techniques provided herein.

Alternately, search results can be presented graphically using bar charts, pie charts, histograms, Excel compatible spreadsheets, etc. Search results can also be saved as an Excel compatible file for later analysis. Additionally and optionally, the methods and systems herein can allow the search results to be provided to an application through a variety of Application Programmer Interfaces (APIs)."(Paragraphs [0044], [0050]).

As per claim 11, Harris teaches a method, wherein the manager module may distribute task requests in order to perform the requested task more efficiently (i.e. "For example, if the data source 20 is a database, the survey engine can identify labels of tables, rows, and columns, and abbreviations of labels, when necessary. This survey information can be incorporated into a dictionary 18 to allow received query information to be properly translated for the database. In the case of a database, query information from a user of the initiating device 12 can be an input to a dictionary 18, and the dictionary output can be a customized SQL query that uses terminology, abbreviations, etc., derived from the survey engine. In some embodiments, the dictionary output can be a customized HTTP search string that can utilize a general access method that can be created for the data source (e.g., the HTTP search string can be formatted based on drop-down menus/boxes, radio button selections, and/or other general access provisions). In an example of a database embodiment, a database can be configured with columns or rows that relate to colors that are abbreviated, such as "Rd" for Red, "Bl" for Blue, etc. If query

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information is submitted with the word "Blue", the customized dictionary can cause a customized query to be formatted using "BI" according to the survey information. Accordingly, row information and column information can be understood herein to include a characterization of the database information that can include header information, element information, extraneous information that can otherwise provide insight to the database, etc." "In the illustrated systems and methods, results of a customized data source search can be provided to a dictionary 18, and the dictionary 18 can thereafter organize, format, etc., the search results for return to the initiating device 12. The information can be presented via the subscriber server 16 to the System Server 14 and hence to the initiating device 12, or directly from the subscriber server 16 to the initiating device 12. In one embodiment, the search results can be formatted in XML to allow the server 16 to format the results according to a web application that can be executing on the subscriber server 16. For example, the XML output from the dictionary 18 can be used in Extensible Stylesheet Language (XSL) stylesheets or other web formatting options. Those with ordinary skill in the art will recognize that many formats for the dictionary output can be utilized, and the use of XML herein is provided for illustration and not limitation. For example, in one embodiment, HTML templates can be utilized to present search results directly to an internet browser without requiring additional programming. Other forms of SGML documents or other textual formats can be used without departing from the scope of the techniques provided herein. Alternately, search results can be presented graphically using bar charts, pie charts, histograms, Excel compatible spreadsheets, etc. Search results can also be saved as an Excel compatible file for later analysis. Additionally and optionally, the methods and systems herein can allow the search results to be provided to an application through a variety of Application Programmer Interfaces (APIs)."(Paragraphs [0044], [0050]).

As per claims 12, Harris teaches a data query module comprising: at least one manager module configured to compile information from a database about available talents and to broadcast at least one task request to an agent that is shown to correspond to the task request in the database(i.e. "For example, if the data source 20 is a database. the survey

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engine can identify labels of tables, rows, and columns, and abbreviations of labels, when necessary.

This survey information can be incorporated into a dictionary 18 to allow received query information to be properly translated for the database. In the case of a database, query information from a user of the initiating device 12 can be an input to a dictionary 18, and the dictionary output can be a customized SQL query that uses terminology, abbreviations, etc., derived from the survey engine. In some embodiments, the dictionary output can be a customized HTTP search string that can utilize a general access method that can be created for the data source (e.g., the HTTP search string can be formatted based on drop-down menus/boxes, radio button selections, and/or other general access provisions). In an example of a database embodiment, a database can be configured with columns or rows that relate to colors that are abbreviated, such as "Rd" for Red, "Bl" for Blue, etc. If query information is submitted with the word "Blue", the customized dictionary can cause a customized query to be formatted using "Bl" according to the survey information. Accordingly, row information and column information can be understood herein to include a characterization of the database information that can include header information, element information, extraneous information that can otherwise provide insight to the database, etc." "In the illustrated systems and methods, results of a customized data source search can be provided to a dictionary 18, and the dictionary 18 can thereafter organize, format, etc., the search results for return to the initiating device 12. The information can be presented via the subscriber server 16 to the System Server 14 and hence to the initiating device 12, or directly from the subscriber server 16 to the initiating device 12. In one embodiment, the search results can be formatted in XML to allow the server 16 to format the results according to a web application that can be executing on the subscriber server 16. For example, the XML output from the dictionary 18 can be used in Extensible Stylesheet Language (XSL) stylesheets or other web formatting options. Those with ordinary skill in the art will recognize that many formats for the dictionary output can be utilized, and the use of XML herein is provided for illustration and not limitation. For example, in one embodiment, HTML templates can be utilized to present search results directly to an internet browser without requiring additional programming. Other forms of SGML documents or other textual formats can be used without departing from the scope of the techniques provided herein. Alternately, search results can be presented graphically using bar charts, pie charts, histograms, Excel

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compatible spreadsheets, etc. Search results can also be saved as an Excel compatible file for later analysis. Additionally and optionally, the methods and systems herein can allow the search results to be provided to an application through a variety of Application Programmer Interfaces (APIs).") (Paragraphs [0044], [0050]); at least one agent capable of performing at least one talent, and wherein the agent is configured to record an expression of available talents onto the database (i.e. "For example, if the data source 20 is a database, the survey engine can identify labels of tables, rows, and columns, and abbreviations of labels, when necessary. This survey information can be incorporated into a dictionary 18 to allow received query information to be properly translated for the database. In the case of a database, query information from a user of the initiating device 12 can be an input to a dictionary 18, and the dictionary output can be a customized SQL query that uses terminology, abbreviations, etc., derived from the survey engine. In some embodiments, the dictionary output can be a customized HTTP search string that can utilize a general access method that can be created for the data source (e.g., the HTTP search string can be formatted based on drop-down menus/boxes, radio button selections, and/or other general access provisions). In an example of a database embodiment, a database can be configured with columns or rows that relate to colors that are abbreviated, such as "Rd" for Red, "Bl" for Blue, etc. If query information is submitted with the word "Blue", the customized dictionary can cause a customized query to be formatted using "Bl" according to the survey information. Accordingly, row information and column information can be understood herein to include a characterization of the database information that can include header information, element information, extraneous information that can otherwise provide insight to the database, etc." "In the illustrated systems and methods, results of a customized data source search can be provided to a dictionary 18, and the dictionary 18 can thereafter organize, format, etc., the search results for return to the initiating device 12. The information can be presented via the subscriber server 16 to the System Server 14 and hence to the initiating device 12, or directly from the subscriber server 16 to the initiating device 12. In one embodiment, the search results can be formatted in XML to allow the server 16 to format the results according to a web application that can be executing on the subscriber server 16. For example, the XML

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output from the dictionary 18 can be used in Extensible Stylesheet Language (XSL) stylesheets or other web formatting options. Those with ordinary skill in the art will recognize that many formats for the dictionary output can be utilized, and the use of XML herein is provided for illustration and not limitation.

For example, in one embodiment, HTML templates can be utilized to present search results directly to an internet browser without requiring additional programming. Other forms of SGML documents or other textual formats can be used without departing from the scope of the techniques provided herein.

Alternately, search results can be presented graphically using bar charts, pie charts, histograms, Excel compatible spreadsheets, etc. Search results can also be saved as an Excel compatible file for later analysis. Additionally and optionally, the methods and systems herein can allow the search results to be provided to an application through a variety of Application Programmer Interfaces (APIs).") (Paragraphs

[0044], [0050]); and at least one database including information about available talents

and their corresponding agents (i.e. "For example, if the data source 20 is a database, the survey engine can identify labels of tables, rows, and columns, and abbreviations of labels, when necessary.

This survey information can be incorporated into a dictionary 18 to allow received query information to be properly translated for the database. In the case of a database, query information from a user of the initiating device 12 can be an input to a dictionary 18, and the dictionary output can be a customized SQL query that uses terminology, abbreviations, etc., derived from the survey engine. In some embodiments, the dictionary output can be a customized HTTP search string that can utilize a general access method that can be created for the data source (e.g., the HTTP search string can be formatted based on drop-down menus/boxes, radio button selections, and/or other general access provisions). In an example of a database embodiment, a database can be configured with columns or rows that relate to colors that are abbreviated, such as "Rd" for Red, "Bl" for Blue, etc. If query information is submitted with the word "Blue", the customized dictionary can cause a customized query to be formatted using "Bl" according to the survey information. Accordingly, row information and column information can be understood herein to include a characterization of the database information that can include header information, element information, extraneous information that can otherwise provide insight to the database, etc." "In the

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illustrated systems and methods, results of a customized data source search can be provided to a dictionary 18, and the dictionary 18 can thereafter organize, format, etc., the search results for return to the initiating device 12. The information can be presented via the subscriber server 16 to the System Server 14 and hence to the initiating device 12, or directly from the subscriber server 16 to the initiating device 12. In one embodiment, the search results can be formatted in XML to allow the server 16 to format the results according to a web application that can be executing on the subscriber server 16. For example, the XML output from the dictionary 18 can be used in Extensible Stylesheet Language (XSL) stylesheets or other web formatting options. Those with ordinary skill in the art will recognize that many formats for the dictionary output can be utilized, and the use of XML herein is provided for illustration and not limitation. For example, in one embodiment, HTML templates can be utilized to present search results directly to an internet browser without requiring additional programming. Other forms of SGML documents or other textual formats can be used without departing from the scope of the techniques provided herein. Alternately, search results can be presented graphically using bar charts, pie charts, histograms, Excel compatible spreadsheets, etc. Search results can also be saved as an Excel compatible file for later analysis. Additionally and optionally, the methods and systems herein can allow the search results to be provided to an application through a variety of Application Programmer Interfaces (APIs)."(Paragraphs [0044], [0050]).

As per claims 13, Harris teaches a data query module, wherein the at least one manager module includes a plurality of manager modules distributing processes to increase efficiency and capable of backing up one another in case one or more of the plurality of manager modules fails (i.e. "For example, if the data source 20 is a database. the survey engine can identify labels of tables, rows, and columns, and abbreviations of labels, when necessary. This survey information can be incorporated into a dictionary 18 to allow received query information to be properly translated for the database. In the case of a database, query information from a user of the initiating device 12 can be an input to a dictionary 18, and the dictionary output can be a

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customized SQL query that uses terminology, abbreviations, etc., derived from the survey engine. In some embodiments, the dictionary output can be a customized HTTP search string that can utilize a general access method that can be created for the data source (e.g., the HTTP search string can be formatted based on drop-down menus/boxes, radio button selections, and/or other general access provisions). In an example of a database embodiment, a database can be configured with columns or rows that relate to colors that are abbreviated, such as "Rd" for Red, "Bl" for Blue, etc. If query information is submitted with the word "Blue", the customized dictionary can cause a customized query to be formatted using "Bl" according to the survey information. Accordingly, row information and column information can be understood herein to include a characterization of the database information that can include header information, element information, extraneous information that can otherwise provide insight to the database, etc." "In the illustrated systems and methods, results of a customized data source search can be provided to a dictionary 18, and the dictionary 18 can thereafter organize, format, etc., the search results for return to the initiating device 12. The information can be presented via the subscriber server 16 to the System Server 14 and hence to the initiating device 12, or directly from the subscriber server 16 to the initiating device 12. In one embodiment, the search results can be formatted in XML to allow the server 16 to format the results according to a web application that can be executing on the subscriber server 16. For example, the XML output from the dictionary 18 can be used in Extensible Stylesheet Language (XSL) stylesheets or other web formatting options. Those with ordinary skill in the art will recognize that many formats for the dictionary output can be utilized, and the use of XML herein is provided for illustration and not limitation. For example, in one embodiment, HTML templates can be utilized to present search results directly to an internet browser without requiring additional programming. Other forms of SGML documents or other textual formats can be used without departing from the scope of the techniques provided herein. Alternately, search results can be presented graphically using bar charts, pie charts, histograms, Excel compatible spreadsheets, etc. Search results can also be saved as an Excel compatible file for later analysis. Additionally and optionally, the methods and systems herein can allow the search results to be provided to an application through a variety of Application Programmer Interfaces (APIs)."(Paragraphs [0044], [0050]).

As per claims 14, Harris teaches a data query module, wherein the at least one agent includes a plurality of agents and wherein each agent may include at least one talent provider, wherein the agents are capable of performing certain native talents and the talent providers are capable of performing other talents (i.e. "For example, if the data source 20 is a database. the survey engine can identify labels of tables, rows, and columns, and abbreviations of labels, when necessary. This survey information can be incorporated into a dictionary 18 to allow received query information to be properly translated for the database. In the case of a database, query information from a user of the initiating device 12 can be an input to a dictionary 18, and the dictionary output can be a customized SQL query that uses terminology, abbreviations, etc., derived from the survey engine. In some embodiments, the dictionary output can be a customized HTTP search string that can utilize a general access method that can be created for the data source (e.g., the HTTP search string can be formatted based on drop-down menus/boxes, radio button selections, and/or other general access provisions). In an example of a database embodiment, a database can be configured with columns or rows that relate to colors that are abbreviated, such as "Rd" for Red, "Bl" for Blue, etc. If query information is submitted with the word "Blue", the customized dictionary can cause a customized query to be formatted using "Bl" according to the survey information. Accordingly, row information and column information can be understood herein to include a characterization of the database information that can include header information, element information, extraneous information that can otherwise provide insight to the database, etc." "In the illustrated systems and methods, results of a customized data source search can be provided to a dictionary 18, and the dictionary 18 can thereafter organize, format, etc., the search results for return to the initiating device 12. The information can be presented via the subscriber server 16 to the System Server 14 and hence to the initiating device 12, or directly from the subscriber server 16 to the initiating device 12. In one embodiment, the search results can be formatted in XML to allow the server 16 to format the results according to a web application that can be executing on the subscriber server 16. For example, the XML output from the dictionary 18 can be used in Extensible

Stylesheet Language (XSL) stylesheets or other web formatting options. Those with ordinary skill in the art will recognize that many formats for the dictionary output can be utilized, and the use of XML herein is provided for illustration and not limitation. For example, in one embodiment, HTML templates can be utilized to present search results directly to an internet browser without requiring additional programming. Other forms of SGML documents or other textual formats can be used without departing from the scope of the techniques provided herein. Alternately, search results can be presented graphically using bar charts, pie charts, histograms, Excel compatible spreadsheets, etc. Search results can also be saved as an Excel compatible file for later analysis. Additionally and optionally, the methods and systems herein can allow the search results to be provided to an application through a variety of Application Programmer Interfaces (APIs)."(Paragraphs [0044], [0050]).

As per claims 15, Harris teaches a data query module, wherein the at least one database further includes: a configuration database configured to store information about available talents and their corresponding agents (i.e. "For example, if the data source 20 is a database. the survey engine can identify labels of tables, rows, and columns, and abbreviations of labels, when necessary. This survey information can be incorporated into a dictionary 18 to allow received query information to be properly translated for the database. In the case of a database, query information from a user of the initiating device 12 can be an input to a dictionary 18, and the dictionary output can be a customized SQL query that uses terminology, abbreviations, etc., derived from the survey engine. In some embodiments, the dictionary output can be a customized HTTP search string that can utilize a general access method that can be created for the data source (e.g., the HTTP search string can be formatted based on drop-down menus/boxes, radio button selections, and/or other general access provisions). In an example of a database embodiment, a database can be configured with columns or rows that relate to colors that are abbreviated, such as "Rd" for Red, "Bl" for Blue, etc. If query information is submitted with the word "Blue", the customized dictionary can cause a customized query to be formatted using "Bl" according to the survey information. Accordingly, row information and column

information can be understood herein to include a characterization of the database information that can include header information, element information, extraneous information that can otherwise provide insight to the database, etc." "In the illustrated systems and methods, results of a customized data source search can be provided to a dictionary 18, and the dictionary 18 can thereafter organize, format, etc., the search results for return to the initiating device 12. The information can be presented via the subscriber server 16 to the System Server 14 and hence to the initiating device 12, or directly from the subscriber server 16 to the initiating device 12. In one embodiment, the search results can be formatted in XML to allow the server 16 to format the results according to a web application that can be executing on the subscriber server 16. For example, the XML output from the dictionary 18 can be used in Extensible Stylesheet Language (XSL) stylesheets or other web formatting options. Those with ordinary skill in the art will recognize that many formats for the dictionary output can be utilized, and the use of XML herein is provided for illustration and not limitation. For example, in one embodiment, HTML templates can be utilized to present search results directly to an internet browser without requiring additional programming. Other forms of SGML documents or other textual formats can be used without departing from the scope of the techniques provided herein. Alternately, search results can be presented graphically using bar charts, pie charts, histograms, Excel compatible spreadsheets, etc. Search results can also be saved as an Excel compatible file for later analysis. Additionally and optionally, the methods and systems herein can allow the search results to be provided to an application through a variety of Application Programmer Interfaces (APIs)."(Paragraphs [0044], [0050]); an audit database configured to store information about requested tasks from a requester; and a results database configured to store output information from at least one talent provider (i.e. "For example, if the data source 20 is a database. the survey engine can identify labels of tables, rows, and columns, and abbreviations of labels, when necessary. This survey information can be incorporated into a dictionary 18 to allow received query information to be properly translated for the database. In the case of a database, query information from a user of the initiating device 12 can be an input to a dictionary 18, and the dictionary output can be a customized SQL query that uses terminology, abbreviations, etc., derived from

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the survey engine. In some embodiments, the dictionary output can be a customized HTTP search string that can utilize a general access method that can be created for the data source (e.g., the HTTP search string can be formatted based on drop-down menus/boxes, radio button selections, and/or other general access provisions). In an example of a database embodiment, a database can be configured with columns or rows that relate to colors that are abbreviated, such as "Rd" for Red, "Bl" for Blue, etc. If query information is submitted with the word "Blue", the customized dictionary can cause a customized query to be formatted using "Bl" according to the survey information. Accordingly, row information and column information can be understood herein to include a characterization of the database information that can include header information, element information, extraneous information that can otherwise provide insight to the database, etc." "In the illustrated systems and methods, results of a customized data source search can be provided to a dictionary 18, and the dictionary 18 can thereafter organize, format, etc., the search results for return to the initiating device 12. The information can be presented via the subscriber server 16 to the System Server 14 and hence to the initiating device 12, or directly from the subscriber server 16 to the initiating device 12. In one embodiment, the search results can be formatted in XML to allow the server 16 to format the results according to a web application that can be executing on the subscriber server 16. For example, the XML output from the dictionary 18 can be used in Extensible Stylesheet Language (XSL) stylesheets or other web formatting options. Those with ordinary skill in the art will recognize that many formats for the dictionary output can be utilized, and the use of XML herein is provided for illustration and not limitation. For example, in one embodiment, HTML templates can be utilized to present search results directly to an internet browser without requiring additional programming. Other forms of SGML documents or other textual formats can be used without departing from the scope of the techniques provided herein. Alternately, search results can be presented graphically using bar charts, pie charts, histograms, Excel compatible spreadsheets, etc. Search results can also be saved as an Excel compatible file for later analysis. Additionally and optionally, the methods and systems herein can allow the search results to be provided to an application through a variety of Application Programmer Interfaces (APIs)."(Paragraphs [0044], [0050]).

As per claims 16, Harris teaches a data query module, wherein a talent is an action capable of being performed by an agent (i.e. "For example, if the data source 20 is a database. the survey engine can identify labels of tables, rows, and columns, and abbreviations of labels, when necessary. This survey information can be incorporated into a dictionary 18 to allow received query information to be properly translated for the database. In the case of a database, query information from a user of the initiating device 12 can be an input to a dictionary 18, and the dictionary output can be a customized SQL query that uses terminology, abbreviations, etc., derived from the survey engine. In some embodiments, the dictionary output can be a customized HTTP search string that can utilize a general access method that can be created for the data source (e.g., the HTTP search string can be formatted based on drop-down menus/boxes, radio button selections, and/or other general access provisions). In an example of a database embodiment, a database can be configured with columns or rows that relate to colors that are abbreviated, such as "Rd" for Red, "Bl" for Blue, etc. If query information is submitted with the word "Blue", the customized dictionary can cause a customized query to be formatted using "Bl" according to the survey information. Accordingly, row information and column information can be understood herein to include a characterization of the database information that can include header information, element information, extraneous information that can otherwise provide insight to the database, etc." "In the illustrated systems and methods, results of a customized data source search can be provided to a dictionary 18, and the dictionary 18 can thereafter organize, format, etc., the search results for return to the initiating device 12. The information can be presented via the subscriber server 16 to the System Server 14 and hence to the initiating device 12, or directly from the subscriber server 16 to the initiating device 12. In one embodiment, the search results can be formatted in XML to allow the server 16 to format the results according to a web application that can be executing on the subscriber server 16. For example, the XML output from the dictionary 18 can be used in Extensible Stylesheet Language (XSL) stylesheets or other web formatting options. Those with ordinary skill in the art will recognize that many formats for the dictionary output can be utilized, and the use of XML herein is provided for illustration and not limitation. For example, in one embodiment, HTML templates can be

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utilized to present search results directly to an internet browser without requiring additional programming. Other forms of SGML documents or other textual formats can be used without departing from the scope of the techniques provided herein. Alternately, search results can be presented graphically using bar charts, pie charts, histograms, Excel compatible spreadsheets, etc. Search results can also be saved as an Excel compatible file for later analysis. Additionally and optionally, the methods and systems herein can allow the search results to be provided to an application through a variety of Application Programmer Interfaces (APIs)."(Paragraphs [0044], [0050]).

As per claims 17, Harris teaches a data query module, wherein a talent is an action capable of being performed by a talent provider, wherein the talent provider is coupled to one of the at least one agents (i.e. "For example, if the data source 20 is a database. the survey engine can identify labels of tables, rows, and columns, and abbreviations of labels, when necessary. This survey information can be incorporated into a dictionary 18 to allow received query information to be properly translated for the database. In the case of a database, query information from a user of the initiating device 12 can be an input to a dictionary 18, and the dictionary output can be a customized SQL query that uses terminology, abbreviations, etc., derived from the survey engine. In some embodiments, the dictionary output can be a customized HTTP search string that can utilize a general access method that can be created for the data source (e.g., the HTTP search string can be formatted based on drop-down menus/boxes, radio button selections, and/or other general access provisions). In an example of a database embodiment, a database can be configured with columns or rows that relate to colors that are abbreviated, such as "Rd" for Red, "Bl" for Blue, etc. If query information is submitted with the word "Blue", the customized dictionary can cause a customized query to be formatted using "Bl" according to the survey information. Accordingly, row information and column information can be understood herein to include a characterization of the database information that can include header information, element information, extraneous information that can otherwise provide insight to the database, etc." "In the illustrated systems and methods, results of a customized data source search can be provided to a

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dictionary 18, and the dictionary 18 can thereafter organize, format, etc., the search results for return to the initiating device 12. The information can be presented via the subscriber server 16 to the System Server 14 and hence to the initiating device 12, or directly from the subscriber server 16 to the initiating device 12. In one embodiment, the search results can be formatted in XML to allow the server 16 to format the results according to a web application that can be executing on the subscriber server 16. For example, the XML output from the dictionary 18 can be used in Extensible Stylesheet Language (XSL) stylesheets or other web formatting options. Those with ordinary skill in the art will recognize that many formats for the dictionary output can be utilized, and the use of XML herein is provided for illustration and not limitation. For example, in one embodiment, HTML templates can be utilized to present search results directly to an internet browser without requiring additional programming. Other forms of SGML documents or other textual formats can be used without departing from the scope of the techniques provided herein. Alternately, search results can be presented graphically using bar charts, pie charts, histograms, Excel compatible spreadsheets, etc. Search results can also be saved as an Excel compatible file for later analysis. Additionally and optionally, the methods and systems herein can allow the search results to be provided to an application through a variety of Application Programmer Interfaces (APIs)."(Paragraphs [0044], [0050]).

As per claims 18, Harris teaches a data query module, wherein a talent is an action capable of being performed by one of the at least one manager modules (i.e. "For example, if the data source 20 is a database. the survey engine can identify labels of tables, rows, and columns, and abbreviations of labels, when necessary. This survey information can be incorporated into a dictionary 18 to allow received query information to be properly translated for the database. In the case of a database, query information from a user of the initiating device 12 can be an input to a dictionary 18, and the dictionary output can be a customized SQL query that uses terminology, abbreviations, etc., derived from the survey engine. In some embodiments, the dictionary output can be a customized HTTP search string that can utilize a general access method that can be created for the data source (e.g., the

HTTP search string can be formatted based on drop-down menus/boxes, radio button selections, and/or other general access provisions). In an example of a database embodiment, a database can be configured with columns or rows that relate to colors that are abbreviated, such as "Rd" for Red, "Bl" for Blue, etc. If query information is submitted with the word "Blue", the customized dictionary can cause a customized query to be formatted using "Bl" according to the survey information. Accordingly, row information and column information can be understood herein to include a characterization of the database information that can include header information, element information, extraneous information that can otherwise provide insight to the database, etc." "In the illustrated systems and methods, results of a customized data source search can be provided to a dictionary 18, and the dictionary 18 can thereafter organize, format, etc., the search results for return to the initiating device 12. The information can be presented via the subscriber server 16 to the System Server 14 and hence to the initiating device 12, or directly from the subscriber server 16 to the initiating device 12. In one embodiment, the search results can be formatted in XML to allow the server 16 to format the results according to a web application that can be executing on the subscriber server 16. For example, the XML output from the dictionary 18 can be used in Extensible Stylesheet Language (XSL) stylesheets or other web formatting options. Those with ordinary skill in the art will recognize that many formats for the dictionary output can be utilized, and the use of XML herein is provided for illustration and not limitation. For example, in one embodiment, HTML templates can be utilized to present search results directly to an internet browser without requiring additional programming. Other forms of SGML documents or other textual formats can be used without departing from the scope of the techniques provided herein. Alternately, search results can be presented graphically using bar charts, pie charts, histograms, Excel compatible spreadsheets, etc. Search results can also be saved as an Excel compatible file for later analysis. Additionally and optionally, the methods and systems herein can allow the search results to be provided to an application through a variety of Application Programmer Interfaces (APIs)."(Paragraphs [0044], [0050]).

As per claims 19, Harris teaches a data query module, wherein at least one of the at

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least one agents further include at least one talent provider (i.e. "For example, if the data source 20 is a database. the survey engine can identify labels of tables, rows, and columns, and abbreviations of labels, when necessary. This survey information can be incorporated into a dictionary 18 to allow received query information to be properly translated for the database. In the case of a database, query information from a user of the initiating device 12 can be an input to a dictionary 18, and the dictionary output can be a customized SQL query that uses terminology, abbreviations, etc., derived from the survey engine. In some embodiments, the dictionary output can be a customized HTTP search string that can utilize a general access method that can be created for the data source (e.g., the HTTP search string can be formatted based on drop-down menus/boxes, radio button selections, and/or other general access provisions). In an example of a database embodiment, a database can be configured with columns or rows that relate to colors that are abbreviated, such as "Rd" for Red, "Bl" for Blue, etc. If query information is submitted with the word "Blue", the customized dictionary can cause a customized query to be formatted using "Bl" according to the survey information. Accordingly, row information and column information can be understood herein to include a characterization of the database information that can include header information, element information, extraneous information that can otherwise provide insight to the database, etc." "In the illustrated systems and methods, results of a customized data source search can be provided to a dictionary 18, and the dictionary 18 can thereafter organize, format, etc., the search results for return to the initiating device 12. The information can be presented via the subscriber server 16 to the System Server 14 and hence to the initiating device 12, or directly from the subscriber server 16 to the initiating device 12. In one embodiment, the search results can be formatted in XML to allow the server 16 to format the results according to a web application that can be executing on the subscriber server 16. For example, the XML output from the dictionary 18 can be used in Extensible Stylesheet Language (XSL) stylesheets or other web formatting options. Those with ordinary skill in the art will recognize that many formats for the dictionary output can be utilized, and the use of XML herein is provided for illustration and not limitation. For example, in one embodiment, HTML templates can be utilized to present search results directly to an internet browser without requiring additional programming. Other forms of SGML documents or other textual formats can be used without departing from the scope

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of the techniques provided herein. Alternately, search results can be presented graphically using bar charts, pie charts, histograms, Excel compatible spreadsheets, etc. Search results can also be saved as an Excel compatible file for later analysis. Additionally and optionally, the methods and systems herein can allow the search results to be provided to an application through a variety of Application Programmer Interfaces (APIs)."(Paragraphs [0044], [0050]).

As per claims 20, Harris teaches a data query module, wherein each talent provider is capable of performing a talent autonomously if the corresponding agent fails (i.e. "For example, if the data source 20 is a database. the survey engine can identify labels of tables, rows, and columns, and abbreviations of labels, when necessary. This survey information can be incorporated into a dictionary 18 to allow received query information to be properly translated for the database. In the case of a database, query information from a user of the initiating device 12 can be an input to a dictionary 18, and the dictionary output can be a customized SQL query that uses terminology, abbreviations, etc., derived from the survey engine. In some embodiments, the dictionary output can be a customized HTTP search string that can utilize a general access method that can be created for the data source (e.g., the HTTP search string can be formatted based on drop-down menus/boxes, radio button selections, and/or other general access provisions). In an example of a database embodiment, a database can be configured with columns or rows that relate to colors that are abbreviated, such as "Rd" for Red, "Bl" for Blue, etc. If query information is submitted with the word "Blue", the customized dictionary can cause a customized query to be formatted using "Bl" according to the survey information. Accordingly, row information and column information can be understood herein to include a characterization of the database information that can include header information, element information, extraneous information that can otherwise provide insight to the database, etc." "In the illustrated systems and methods, results of a customized data source search can be provided to a dictionary 18, and the dictionary 18 can thereafter organize, format, etc., the search results for return to the initiating device 12. The information can be presented via the subscriber server 16 to the System Server 14 and hence to the initiating device

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12, or directly from the subscriber server 16 to the initiating device 12. In one embodiment, the search results can be formatted in XML to allow the server 16 to format the results according to a web application that can be executing on the subscriber server 16. For example, the XML output from the dictionary 18 can be used in Extensible Stylesheet Language (XSL) stylesheets or other web formatting options. Those with ordinary skill in the art will recognize that many formats for the dictionary output can be utilized, and the use of XML herein is provided for illustration and not limitation. For example, in one embodiment, HTML templates can be utilized to present search results directly to an internet browser without requiring additional programming. Other forms of SGML documents or other textual formats can be used without departing from the scope of the techniques provided herein. Alternately, search results can be presented graphically using bar charts, pie charts, histograms, Excel compatible spreadsheets, etc. Search results can also be saved as an Excel compatible file for later analysis. Additionally and optionally, the methods and systems herein can allow the search results to be provided to an application through a variety of Application Programmer Interfaces (APIs)."(Paragraphs [0044], [0050]).

As per claims 21, Harris teaches a data query module, wherein a task request is a request to perform a particular talent (i.e. "For example, if the data source 20 is a database. the survey engine can identify labels of tables, rows, and columns, and abbreviations of labels, when necessary. This survey information can be incorporated into a dictionary 18 to allow received query information to be properly translated for the database. In the case of a database, query information from a user of the initiating device 12 can be an input to a dictionary 18, and the dictionary output can be a customized SQL query that uses terminology, abbreviations, etc., derived from the survey engine. In some embodiments, the dictionary output can be a customized HTTP search string that can utilize a general access method that can be created for the data source (e.g., the HTTP search string can be formatted based on drop-down menus/boxes, radio button selections, and/or other general access provisions). In an example of a database embodiment, a database can be configured with columns or rows that relate to colors that are abbreviated, such as "Rd" for Red, "Bl" for Blue, etc. If query information

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is submitted with the word "Blue", the customized dictionary can cause a customized query to be formatted using "BI" according to the survey information. Accordingly, row information and column information can be understood herein to include a characterization of the database information that can include header information, element information, extraneous information that can otherwise provide insight to the database, etc." "In the illustrated systems and methods, results of a customized data source search can be provided to a dictionary 18, and the dictionary 18 can thereafter organize, format, etc., the search results for return to the initiating device 12. The information can be presented via the subscriber server 16 to the System Server 14 and hence to the initiating device 12, or directly from the subscriber server 16 to the initiating device 12. In one embodiment, the search results can be formatted in XML to allow the server 16 to format the results according to a web application that can be executing on the subscriber server 16. For example, the XML output from the dictionary 18 can be used in Extensible Stylesheet Language (XSL) stylesheets or other web formatting options. Those with ordinary skill in the art will recognize that many formats for the dictionary output can be utilized, and the use of XML herein is provided for illustration and not limitation. For example, in one embodiment, HTML templates can be utilized to present search results directly to an internet browser without requiring additional programming. Other forms of SGML documents or other textual formats can be used without departing from the scope of the techniques provided herein. Alternately, search results can be presented graphically using bar charts, pie charts, histograms, Excel compatible spreadsheets, etc. Search results can also be saved as an Excel compatible file for later analysis. Additionally and optionally, the methods and systems herein can allow the search results to be provided to an application through a variety of Application Programmer Interfaces (APIs)."(Paragraphs [0044], [0050]).

As per claims 22, Harris teaches a data query module, wherein the at least one manager module may distribute task requests among multiple agents in order to increase the efficiency with which the task is completed (i.e. "For example, if the data source 20 is a database. the survey engine can identify labels of tables, rows, and columns, and abbreviations of

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labels, when necessary. This survey information can be incorporated into a dictionary 18 to allow received query information to be properly translated for the database. In the case of a database, query information from a user of the initiating device 12 can be an input to a dictionary 18, and the dictionary output can be a customized SQL query that uses terminology, abbreviations, etc., derived from the survey engine. In some embodiments, the dictionary output can be a customized HTTP search string that can utilize a general access method that can be created for the data source (e.g., the HTTP search string can be formatted based on drop-down menus/boxes, radio button selections, and/or other general access provisions). In an example of a database embodiment, a database can be configured with columns or rows that relate to colors that are abbreviated, such as "Rd" for Red, "Bl" for Blue, etc. If query information is submitted with the word "Blue", the customized dictionary can cause a customized query to be formatted using "Bl" according to the survey information. Accordingly, row information and column information can be understood herein to include a characterization of the database information that can include header information, element information, extraneous information that can otherwise provide insight to the database, etc." "In the illustrated systems and methods, results of a customized data source search can be provided to a dictionary 18, and the dictionary 18 can thereafter organize, format, etc., the search results for return to the initiating device 12. The information can be presented via the subscriber server 16 to the System Server 14 and hence to the initiating device 12, or directly from the subscriber server 16 to the initiating device 12. In one embodiment, the search results can be formatted in XML to allow the server 16 to format the results according to a web application that can be executing on the subscriber server 16. For example, the XML output from the dictionary 18 can be used in Extensible Stylesheet Language (XSL) stylesheets or other web formatting options. Those with ordinary skill in the art will recognize that many formats for the dictionary output can be utilized, and the use of XML herein is provided for illustration and not limitation. For example, in one embodiment, HTML templates can be utilized to present search results directly to an internet browser without requiring additional programming. Other forms of SGML documents or other textual formats can be used without departing from the scope of the techniques provided herein. Alternately, search results can be presented graphically using bar charts, pie charts, histograms, Excel compatible spreadsheets, etc. Search results can also be saved as

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an Excel compatible file for later analysis. Additionally and optionally, the methods and systems herein can allow the search results to be provided to an application through a variety of Application Programmer Interfaces (APIs)."(Paragraphs [0044], [0050]).

As per claims 23, Harris teaches a data query module comprising: A plurality of manager modules configured to compile information from a database about available talents and to broadcast at least one task request to a talent agent that is shown to correspond to the task request in the configuration database, wherein the plurality of manager modules distribute processes and can assume additional responsibilities if one of the plurality of manager modules fails (i.e. "For example, if the data source 20 is a database. the survey engine can identify labels of tables, rows, and columns, and abbreviations of labels, when necessary. This survey information can be incorporated into a dictionary 18 to allow received query information to be properly translated for the database. In the case of a database, query information from a user of the initiating device 12 can be an input to a dictionary 18, and the dictionary output can be a customized SQL query that uses terminology, abbreviations, etc., derived from the survey engine. In some embodiments, the dictionary output can be a customized HTTP search string that can utilize a general access method that can be created for the data source (e.g., the HTTP search string can be formatted based on drop-down menus/boxes, radio button selections, and/or other general access provisions). In an example of a database embodiment, a database can be configured with columns or rows that relate to colors that are abbreviated, such as "Rd" for Red, "Bl" for Blue, etc. If query information is submitted with the word "Blue", the customized dictionary can cause a customized query to be formatted using "Bl" according to the survey information. Accordingly, row information and column information can be understood herein to include a characterization of the database information that can include header information, element information, extraneous information that can otherwise provide insight to the database, etc." "In the illustrated systems and methods, results of a customized data

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source search can be provided to a dictionary 18, and the dictionary 18 can thereafter organize, format, etc., the search results for return to the initiating device 12. The information can be presented via the subscriber server 16 to the System Server 14 and hence to the initiating device 12, or directly from the subscriber server 16 to the initiating device 12. In one embodiment, the search results can be formatted in XML to allow the server 16 to format the results according to a web application that can be executing on the subscriber server 16. For example, the XML output from the dictionary 18 can be used in Extensible Stylesheet Language (XSL) stylesheets or other web formatting options. Those with ordinary skill in the art will recognize that many formats for the dictionary output can be utilized, and the use of XML herein is provided for illustration and not limitation. For example, in one embodiment, HTML templates can be utilized to present search results directly to an internet browser without requiring additional programming. Other forms of SGML documents or other textual formats can be used without departing from the scope of the techniques provided herein. Alternately, search results can be presented graphically using bar charts, pie charts, histograms, Excel compatible spreadsheets, etc. Search results can also be saved as an Excel compatible file for later analysis. Additionally and optionally, the methods and systems herein can allow the search results to be provided to an application through a variety of Application Programmer Interfaces (APIs).)(Paragraphs [0044], [0050]), at least one talent agent configured to record an expression of available talents onto the database, wherein each talent agent further includes at least one talent provider capable of performing a particular talent (i.e. "For example, if the data source 20 is a database. the survey engine can identify labels of tables, rows, and columns, and abbreviations of labels, when necessary. This survey information can be incorporated into a dictionary 18 to allow received query information to be properly translated for the database. In the case of a database, query information from a user of the initiating device 12 can be an input to a dictionary 18, and the dictionary output can be a customized SQL query that uses terminology, abbreviations, etc., derived from the survey engine. In some embodiments, the dictionary output can be a customized HTTP search string that can utilize a general access method that can be created for the data source (e.g., the HTTP search string can be formatted based on drop-down menus/boxes, radio button selections, and/or

other general access provisions). In an example of a database embodiment, a database can be configured with columns or rows that relate to colors that are abbreviated, such as "Rd" for Red, "Bl" for Blue, etc. If query information is submitted with the word "Blue", the customized dictionary can cause a customized query to be formatted using "Bl" according to the survey information. Accordingly, row information and column information can be understood herein to include a characterization of the database information that can include header information, element information, extraneous information that can otherwise provide insight to the database, etc." "In the illustrated systems and methods, results of a customized data source search can be provided to a dictionary 18, and the dictionary 18 can thereafter organize, format, etc., the search results for return to the initiating device 12. The information can be presented via the subscriber server 16 to the System Server 14 and hence to the initiating device 12, or directly from the subscriber server 16 to the initiating device 12. In one embodiment, the search results can be formatted in XML to allow the server 16 to format the results according to a web application that can be executing on the subscriber server 16. For example, the XML output from the dictionary 18 can be used in Extensible Stylesheet Language (XSL) stylesheets or other web formatting options. Those with ordinary skill in the art will recognize that many formats for the dictionary output can be utilized, and the use of XML herein is provided for illustration and not limitation. For example, in one embodiment, HTML templates can be utilized to present search results directly to an internet browser without requiring additional programming. Other forms of SGML documents or other textual formats can be used without departing from the scope of the techniques provided herein. Alternately, search results can be presented graphically using bar charts, pie charts, histograms, Excel compatible spreadsheets, etc. Search results can also be saved as an Excel compatible file for later analysis. Additionally and optionally, the methods and systems herein can allow the search results to be provided to an application through a variety of Application Programmer Interfaces (APIs)."(Paragraphs [0044], [0050]); and a configuration database including information about available talents and their corresponding talent agents (i.e. "For example, if the data source 20 is a database, the survey engine can identify labels of tables, rows, and columns, and abbreviations of labels, when necessary. This survey information can be

incorporated into a dictionary 18 to allow received query information to be properly translated for the database. In the case of a database, query information from a user of the initiating device 12 can be an input to a dictionary 18, and the dictionary output can be a customized SQL query that uses terminology, abbreviations, etc., derived from the survey engine. In some embodiments, the dictionary output can be a customized HTTP search string that can utilize a general access method that can be created for the data source (e.g., the HTTP search string can be formatted based on drop-down menus/boxes, radio button selections, and/or other general access provisions). In an example of a database embodiment, a database can be configured with columns or rows that relate to colors that are abbreviated, such as "Rd" for Red, "Bl" for Blue, etc. If query information is submitted with the word "Blue", the customized dictionary can cause a customized query to be formatted using "Bl" according to the survey information.

Accordingly, row information and column information can be understood herein to include a characterization of the database information that can include header information, element information, extraneous information that can otherwise provide insight to the database, etc." "In the illustrated systems and methods, results of a customized data source search can be provided to a dictionary 18, and the dictionary 18 can thereafter organize, format, etc., the search results for return to the initiating device 12. The information can be presented via the subscriber server 16 to the System Server 14 and hence to the initiating device 12, or directly from the subscriber server 16 to the initiating device 12. In one embodiment, the search results can be formatted in XML to allow the server 16 to format the results according to a web application that can be executing on the subscriber server 16. For example, the XML output from the dictionary 18 can be used in Extensible Stylesheet Language (XSL) stylesheets or other web formatting options. Those with ordinary skill in the art will recognize that many formats for the dictionary output can be utilized, and the use of XML herein is provided for illustration and not limitation. For example, in one embodiment, HTML templates can be utilized to present search results directly to an internet browser without requiring additional programming. Other forms of SGML documents or other textual formats can be used without departing from the scope of the techniques provided herein. Alternately, search results can be presented graphically using bar charts, pie charts, histograms, Excel compatible spreadsheets, etc. Search results can also be saved as an Excel compatible file for later

analysis. Additionally and optionally, the methods and systems herein can allow the search results to be provided to an application through a variety of Application Programmer Interfaces (APIs).") (Paragraphs [0044], [0050]).

As per claims 24, Harris teaches a data query module, further includes an audit database configured to store information about requested tasks (i.e. "For example, if the data source 20 is a database. the survey engine can identify labels of tables, rows, and columns, and abbreviations of labels, when necessary. This survey information can be incorporated into a dictionary 18 to allow received query information to be properly translated for the database. In the case of a database, query information from a user of the initiating device 12 can be an input to a dictionary 18, and the dictionary output can be a customized SQL query that uses terminology, abbreviations, etc., derived from the survey engine. In some embodiments, the dictionary output can be a customized HTTP search string that can utilize a general access method that can be created for the data source (e.g., the HTTP search string can be formatted based on drop-down menus/boxes, radio button selections, and/or other general access provisions). In an example of a database embodiment, a database can be configured with columns or rows that relate to colors that are abbreviated, such as "Rd" for Red, "Bl" for Blue, etc. If query information is submitted with the word "Blue", the customized dictionary can cause a customized query to be formatted using "Bl" according to the survey information. Accordingly, row information and column information can be understood herein to include a characterization of the database information that can include header information, element information, extraneous information that can otherwise provide insight to the database, etc." "In the illustrated systems and methods, results of a customized data source search can be provided to a dictionary 18, and the dictionary 18 can thereafter organize, format, etc., the search results for return to the initiating device 12. The information can be presented via the subscriber server 16 to the System Server 14 and hence to the initiating device 12, or directly from the subscriber server 16 to the initiating device 12. In one embodiment, the search results can be formatted in XML to allow the server 16 to format the results according to a web application that can be executing on

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the subscriber server 16. For example, the XML output from the dictionary 18 can be used in Extensible Stylesheet Language (XSL) stylesheets or other web formatting options. Those with ordinary skill in the art will recognize that many formats for the dictionary output can be utilized, and the use of XML herein is provided for illustration and not limitation. For example, in one embodiment, HTML templates can be utilized to present search results directly to an internet browser without requiring additional programming. Other forms of SGML documents or other textual formats can be used without departing from the scope of the techniques provided herein. Alternately, search results can be presented graphically using bar charts, pie charts, histograms, Excel compatible spreadsheets, etc. Search results can also be saved as an Excel compatible file for later analysis. Additionally and optionally, the methods and systems herein can allow the search results to be provided to an application through a variety of Application Programmer Interfaces (APIs)."(Paragraphs [0044], [0050]).

As per claims 25, Harris teaches a data query module, further includes a results database configured to store output information from the at least one talent providers (i.e. "For example, if the data source 20 is a database, the survey engine can identify labels of tables, rows, and columns, and abbreviations of labels, when necessary. This survey information can be incorporated into a dictionary 18 to allow received query information to be properly translated for the database. In the case of a database, query information from a user of the initiating device 12 can be an input to a dictionary 18, and the dictionary output can be a customized SQL query that uses terminology, abbreviations, etc., derived from the survey engine. In some embodiments, the dictionary output can be a customized HTTP search string that can utilize a general access method that can be created for the data source (e.g., the HTTP search string can be formatted based on drop-down menus/boxes, radio button selections, and/or other general access provisions). In an example of a database embodiment, a database can be configured with columns or rows that relate to colors that are abbreviated, such as "Rd" for Red, "Bl" for Blue, etc. If query information is submitted with the word "Blue", the customized dictionary can cause a customized query to be formatted using "Bl" according to the survey information.

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Accordingly, row information and column information can be understood herein to include a characterization of the database information that can include header information, element information, extraneous information that can otherwise provide insight to the database, etc." "In the illustrated systems and methods, results of a customized data source search can be provided to a dictionary 18, and the dictionary 18 can thereafter organize, format, etc., the search results for return to the initiating device 12. The information can be presented via the subscriber server 16 to the System Server 14 and hence to the initiating device 12, or directly from the subscriber server 16 to the initiating device 12. In one embodiment, the search results can be formatted in XML to allow the server 16 to format the results according to a web application that can be executing on the subscriber server 16. For example, the XML output from the dictionary 18 can be used in Extensible Stylesheet Language (XSL) stylesheets or other web formatting options. Those with ordinary skill in the art will recognize that many formats for the dictionary output can be utilized, and the use of XML herein is provided for illustration and not limitation. For example, in one embodiment, HTML templates can be utilized to present search results directly to an internet browser without requiring additional programming. Other forms of SGML documents or other textual formats can be used without departing from the scope of the techniques provided herein. Alternately, search results can be presented graphically using bar charts, pie charts, histograms, Excel compatible spreadsheets, etc. Search results can also be saved as an Excel compatible file for later analysis. Additionally and optionally, the methods and systems herein can allow the search results to be provided to an application through a variety of Application Programmer Interfaces (APIs)."(Paragraphs [0044], [0050]).

As per claims 26, Harris teaches a data query module, wherein the at least talent providers are capable of performing requested tasks autonomously if the corresponding talent agent fails (i.e. "For example, if the data source 20 is a database. the survey engine can identify labels of tables, rows, and columns, and abbreviations of labels, when necessary. This survey information can be incorporated into a dictionary 18 to allow received query information to be properly translated for

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the database. In the case of a database, query information from a user of the initiating device 12 can be an input to a dictionary 18, and the dictionary output can be a customized SQL query that uses terminology, abbreviations, etc., derived from the survey engine. In some embodiments, the dictionary output can be a customized HTTP search string that can utilize a general access method that can be created for the data source (e.g., the HTTP search string can be formatted based on drop-down menus/boxes, radio button selections, and/or other general access provisions). In an example of a database embodiment, a database can be configured with columns or rows that relate to colors that are abbreviated, such as "Rd" for Red, "Bl" for Blue, etc. If query information is submitted with the word "Blue", the customized dictionary can cause a customized query to be formatted using "Bl" according to the survey information. Accordingly, row information and column information can be understood herein to include a characterization of the database information that can include header information, element information, extraneous information that can otherwise provide insight to the database, etc." "In the illustrated systems and methods, results of a customized data source search can be provided to a dictionary 18, and the dictionary 18 can thereafter organize, format, etc., the search results for return to the initiating device 12. The information can be presented via the subscriber server 16 to the System Server 14 and hence to the initiating device 12, or directly from the subscriber server 16 to the initiating device 12. In one embodiment, the search results can be formatted in XML to allow the server 16 to format the results according to a web application that can be executing on the subscriber server 16. For example, the XML output from the dictionary 18 can be used in Extensible Stylesheet Language (XSL) stylesheets or other web formatting options. Those with ordinary skill in the art will recognize that many formats for the dictionary output can be utilized, and the use of XML herein is provided for illustration and not limitation. For example, in one embodiment, HTML templates can be utilized to present search results directly to an internet browser without requiring additional programming. Other forms of SGML documents or other textual formats can be used without departing from the scope of the techniques provided herein. Alternately, search results can be presented graphically using bar charts, pie charts, histograms, Excel compatible spreadsheets, etc. Search results can also be saved as an Excel compatible file for later analysis. Additionally and optionally, the methods and systems herein can allow the search results to be

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provided to an application through a variety of Application Programmer Interfaces (APIs)."(Paragraphs [0044], [0050]).


Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Farhan M. Syed whose telephone number is 571-272-7191. The examiner can normally be reached on 8:30AM-5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey Gaffin can be reached on 571-272-4146. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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